



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,529	03/11/2005	Christian Wulff	267332US0PCT	7443
22850	7590	04/23/2007	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			KEYS, ROSALYND ANN	
		ART UNIT	PAPER NUMBER	
		1621		

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/23/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/23/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/527,529	WULFF ET AL.
	Examiner Rosalynd Keys	Art Unit 1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 20 March 2007.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 10-13, 15, 16, 18 and 20 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 10-13, 15, 16, 18 and 20 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

Art Unit: 1621

**DETAILED ACTION**

**Status of Claims**

1. Claims 10-13, 15, 16, 18 and 20 are pending.

Claims 10-13, 15, 16, 18 and 20 are rejected.

Claims 1-9, 14, 17, 19 and 21 are canceled.

**Continued Examination Under 37 CFR 1.114**

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 20, 2007 has been entered.

**Claim Rejections - 35 USC § 103**

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is

Art Unit: 1621

advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 10-13, 15, 16, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clement et al. (US 6,429,342 B1) in view of Kosmin (US 2,508,036).

Clement et al. teach ethoxylation of an initiator compound in the presence of a double metal cyanide catalyst having the claimed formula I (see entire disclosure, in particular column 2, line 45 to column 3, line 59; column 4, line 56 to column 8, line 42 and example 14). The reaction temperature ranges up to 150°C or more, preferably from about 50-130°C, and more preferably from bout 70 to about 120°C (see column 3, lines 54-59). The overall reaction pressure ranges from about 20 psig (1.37 bar) to 150 psig (10.34 bar), preferably from about 30 psig (2.1 bar) to about 90 psig (6.2 bar) [see column 3, lines 46-53]. Suitable initiators include monoalcohols (see column 4, line 66 to column 5, line 2).

Clement et al. differ from the instant claims in that Clement et al. do not specifically disclose using a Guerbet alcohol as the initiator compound. However, Clement et al. teach that the initiator compound is a material having at least one oxyalkylatable group (see column 4, lines 56-65).

Kosmin teaches ethoxylation of 2-n-propyl-heptanol with ethylene oxide in the presence of potassium hydroxide (see entire disclosure, particular column 1, line 17 to column 3, line 13).

One having ordinary skill in the art at the time the invention was made would have found it obvious to utilize the 2-n-propyl-heptanol of Kosmin as the initiator compound in the process of Clement et al. to, since Clement et al. teach that their process can be practiced with any initiator compound having at least one oxyalkylatable group and Kosmin has shown that 2-n-propyl-heptanol is oxyalkylatable. The skilled artisan would have been further motivated to utilize the process of Clement et al. for ethoxylating the 2-n-propyl-heptanol of Kosmin, since Clement et al. teach that their process solves some of the disadvantages associated with using strongly basic catalysts such as those used in the process of Kosmin (see column 1, lines 29-46).

Clement et al. further differ from the instant claims in that the preferred temperature range of Clement et al. falls outside of the claimed temperature range of 140°C to 155°C. However, the claimed

Art Unit: 1621

temperature range overlaps with the temperature range disclosed in Clement et al. The claimed temperature range does not make the instant invention patentable over the invention of Clement et al. because use of the claimed range does not produce an unexpected result (see column 2, lines 63-65 of Clement et al., wherein it is taught that the induction period may range from a few minutes to several hours, depending on the particular catalyst that is used and the temperature). Thus, it was already known in the art that one could shorten the induction period by optimizing the temperature.

#### **Double Patenting**

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 10-13, 15, 16, 18 and 20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 4 and 8-18 of U.S. Patent No. 7,196,030 B2 in view of Clement et al. (US 6,429,342 B1). U.S. Patent No. 7,196,030 B2 claims the same invention except for the temperature range. However, use of the claimed temperature range is taught by Clement et al. (see column 3, lines 54-59) and the motivation to optimize the temperature is also taught by Clement et al. (see column 2, lines 63-65).

One having ordinary skill in the art at the time the invention was made would have found it obvious to conduct the instant using a temperature range as disclosed by Clement et al., since Clement et al. has shown that one can successfully polymerize ethylene oxide in the presence of a dmc catalyst using a temperature ranging from about 20°C to about 150°C.

**Response to Arguments**

Claim Rejections - 35 USC § 103

9. Applicant's arguments filed March 20, 2007 have been fully considered but they are not persuasive.

The Applicants argue that there is no disclosure of the effect of temperature on both the induction time and catalyst stability. The Applicants further argue that they have discovered that a temperature range of from 140-155 °C in the reaction of a Guerbet alcohol to be a temperature that exhibits short induction times without adversely effecting catalyst stability.

These arguments are not persuasive. As pointed out in the office action mailed May 26, 2006 Clement et al. teach in column 2, lines 63-65 that the induction period is effected by the temperature. With regard to the catalyst stability, the reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. >See, e.g., In re Kahn, 441 F.3d 977, 987, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). Therefore applicants discovery that modification of the temperature also has an affect on the catalyst stability does not negate the fact that Clement gives motivation to modify the temperature, albeit for a reason that is different from Applicants.

Applicants "discovery" of different induction times at 100, 120, 140 and 160°C is not unexpected. Again as pointed out previously Clement already recognized that the induction period is effected by a change in the reaction temperature.

The Applicants arguments with respect to reaction of a Guerbet alcohol at a temperature range of 140-155°C are not persuasive. The temperature range of 140-155°C overlaps with the range disclosed by Clement et al. (from about 20°C to about 150°C). Further, although not exemplified Clement et al. teach that the initiator compound is a material having at least one oxyalkylatable group. Kosmin et al. teach that 2-n-propyl-heptanol (a Guerbet alcohol) is an initiator having an oxyalkylatable group. Thus, the Applicants have not discovered anything that was not already disclosed in the prior art, i.e., that one can prepare an alkoxylate by reacting a Guerbet alcohol as the initiator and that one can alkoxylate an initiator having an oxyalkylatable group at temperatures ranging from about 20°C to about 150°C.

Art Unit: 1621

For the above reasons, the Examiner believes the instant claims are *prima facie* obvious with respect to Clement et al. and Kosmin.

Double Patenting

10. Applicant's arguments filed March 20, 2007 have been fully considered but they are not persuasive.

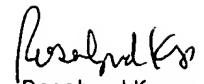
The Applicants again argue unexpected results with respect to the use of their claimed temperature range. These applicants arguments are not persuasive for the same reasons they were not persuasive with respect to the rejection of the claims under 35 USC 103. The Examiner does not believe that a reduction in induction time is unexpected with the use of Applicants claimed temperature range. Further as discussed above that prior art need not have the same reason or motivation to modify in order to establish a case of *prima facie* obviousness. Thus, the use of the claimed temperature range of 140-155° was known in the prior art as a suitable temperature range for alkoxylating an initiator and it was also known that one can affect the induction time by modifying the reaction temperature.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosalynd Keys whose telephone number is 571-272-0639. The examiner can normally be reached on M, W & F 5:30-7:30 am & 1-5 pm; T & Th 5:30 am-4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 1621

  
Rosalynd Keys  
Primary Examiner  
Art Unit 1621

April 15, 2007